CLAIMS:

1. (Currently amended) A process for preparing a compound of formula I

where the variables are each defined as follows:

 R^1 is hydrogen, cyano, amino, $C_1\text{-}C_6\text{-}alkyl,\ C_1\text{-}C_3\text{-}cyanoalkyl,\ }C_1\text{-}C_6\text{-}haloalkyl,\ }C_1\text{-}C_6\text{-}haloalkyl,\ }C_2\text{-}C_6\text{-}haloalkoxy,\ }C_3\text{-}C_7\text{-}cycloalkyl,\ }C_2\text{-}C_6\text{-}alkenyl,\ }C_2\text{-}C_6\text{-}haloalkenyl,\ }C_3\text{-}C_6\text{-}alkynyl,\ }C_3\text{-}C_6\text{-}haloalkynyl\ }C_3\text{-}C$

 R^2 and R^3 are each independently hydrogen, C_1 - C_6 -alkyl, C_1 - C_6 -haloalkyl, C_3 - C_7 -cycloalkyl, C_2 - C_6 -alkenyl, C_2 - C_6 -haloalkenyl, C_3 - C_6 -alkynyl or C_3 - C_6 -haloalkynyl;

X¹, X² and X³ are each independently oxygen or sulfur;

Ar is phenyl, which may be mono- or polysubstituted by the following groups: hydrogen, halogen, cyano, C₁-C₄-alkyl or C₁-C₄-haloalkyl; and

A is -NR 6 R 6 where the variables R 5 and R 6 are each defined as follows: R 5 -and R 6 are each independently

hydrogen, C₁-C₁₀-alkyl, C₂-C₁₀-alkenyl or C₂-C₁₀-alkynyl, each of which may be unsubstituted or substituted by one of the following radicals:

$$\begin{split} &C_1\text{--}C_4\text{-alkyxy},\ C_1\text{--}C_4\text{-alkylthio},\ CN,\ NO_2,\ formyl,\ C_1\text{--}C_4\text{-alkylcarbonyl},\ C_1\text{--}C_4\text{-alkylcarbonyl},\ C_1\text{--}C_4\text{-alkylcarbonyl},\ C_1\text{--}C_4\text{-alkylcarbonyl},\ C_1\text{--}C_4\text{-alkylcarbonyl},\ C_1\text{--}C_4\text{-alkylcarbonyl},\ C_1\text{--}C_4\text{-alkylcarbonyl},\ C_3\text{--}C_4\text{-alkylcarbonyl},\ C_3\text{--}C_4\text{--alkylcarbonyl},\ C_3\text{--}$$

 C_{10} -cycloalkyl, 3- to 8-membered heterocyclyl having from one to three heteroatoms selected from O, S, N and an NR⁷ group where R^7 is hydrogen, C_1 - C_6 -alkyl, C_3 - C_6 -alkenyl or C_3 - C_6 -alkynyl[[,1];

or

phenyl-which may itself have 1, 2, 3 or 4 substituents selected from halogen, C_1 - C_4 -alkyl, C_4 - C_4 -alkoxy, C_4 - C_4 -fluoroalkyl, C_4 - C_4 -alkyloxycarbonyl, trifluoromethylsulfonyl, C_4 - C_3 -alkylamino, formyl, nitro or evano:

 C_1 - C_{10} -haloalkyl, C_2 - C_{10} -haloalkenyl[[,]] or C_2 - C_{10} -haloalkynyl, C_3 - C_3 -cycloalkyl, C_3 - C_{40} -cycloalkenyl, 3– to 8-membered heterocyclyl having from one to three heteroatoms selected from O, S, N-and an NR^2 -group-where R^2 is hydrogen, C_4 - C_6 -alkyl, C_3 - C_6 -alkenyl or C_3 - C_6 -alkylyl.

phenyl or naphthyl, where $C_3 \cdot C_6$ -cycloalkyl, $C_3 \cdot C_{40}$ -cycloalkenyl, 3to 8-membered heterocyclyl, phenyl or naphthyl, each may
themselves have 1, 2, 3 or 4-substituents-selected from halogen, $C_4 \cdot C_4 \cdot$

C₄-C₄-alkyloxycarbonyl, trifluoromethylsulfonyl, formyl, C₄-C₃-alkylamino, C₄-C₃-dialkylamino, phenoxy, nitro or cyano; or

R⁵-and R⁶ together form a saturated or partially unsaturated 5- to 8membered nitrogen heterocycle which may have, as ring members, one or two carbonyl groups, thiocarbonyl groups and/or one or two further heteroatoms selected from O, S, N and an NR⁷-group where \mathbb{R}^{7} is hydrogen, \mathbb{C}_{4} - \mathbb{C}_{6} -alkyl, \mathbb{C}_{3} - \mathbb{C}_{6} -alkynyl, and which may be substituted by \mathbb{C}_{4} - \mathbb{C}_{4} -alkyl, \mathbb{C}_{4} - \mathbb{C}_{4} -alkoxy and/or \mathbb{C}_{4} - \mathbb{C}_{4} -haloalkyl;

comprising reacting a phenyl iso(thio)cyanate of the formula II

$$X^1 = C = N \underbrace{ X^3}_{Ar} \underbrace{ SO_2 \searrow}_{A} \qquad II,$$

where the variables $X^1,\,X^3,\,A^1$ and A are each as defined above, with an enamine of the general formula III

where

R^{1a} is as defined above for R¹ with the exception of amino;

 R^2 , R^3 and X^2 are each as defined above; and

 R^4 is $C_1\text{-}C_6\text{-}alkyl,\,C_1\text{-}C_6\text{-}haloalkyl,\,\,C_1\text{-}C_3\text{-}alkvy,\,\,C_1\text{-}C_3\text{-}alkyl,\,\,C_1\text{-}C_3\text{-}alkyl,\,\,C_1\text{-}C_3\text{-}alkyl,\,\,C_1\text{-}C_3\text{-}alkyl,\,\,C_2\text{-}C_6\text{-}haloalkenyl,\,\,C_3\text{-}C_6\text{-}alkynyl,\,\,C_3\text{-}C_6\text{-}haloalkenyl,\,\,C_3\text{-}C_6\text{-}alkynyl,\,\,C_3\text{-}C_6\text{-}haloalkynyl,\,\,C_3\text{-}C_7\text{-}cycloalkyl,\,\,C_1\text{-}C_6\text{-}cyanoalkyl or benzyl which is itself unsubstituted or substituted on the phenyl ring by methyl, methoxy, methylthio, halogen, nitro or cyano;$

in the presence of from 1.8 to 2.6 base equivalents per mole of the phenyl iso(thio)cyanate of the formula II;

and, if appropriate, in a further step, reacting the resulting 3-phenyl(thio)uracil or 3-phenyldithiouracil of the formula I where R¹=R^{1a}, where R¹ is hydrogen, with an aminating agent of the formula IV

where L1 is a nucleophilic leaving group

to give a 3-phenyl(thio)uracil or 3-phenyldithiouracil of the formula I where R^1 = amino.

- 2. (Original) The process according to claim 1, wherein the reaction is effected in the presence of a base which is selected from alkali metal and alkaline earth metal carbonates, alkali metal and alkaline earth metal alkoxides, alkali metal and alkaline earth metal hydrides and tertiary amines.
- 3. (Previously presented) The process according to claim 1, wherein the reaction is effected in a solvent comprising at least one aprotic polar solvent, and the aprotic polar solvent has a water content of from 0 to 0.5% by weight, based on the total amount of compound II, compound III and solvent.
- 4. (Original) The process according to claim 3, wherein the solvent comprises at least 50% by volume of an aprotic polar solvent selected from carboxamides, carboxylic esters, carbonates, nitriles and sulfoxides.
- 5. (Original) The process according to claim 4, wherein the solvent comprises at least 80% by weight of an aprotic polar solvent.
- 6. (Previously presented) The process according to claim 1, wherein from 0.9 to 1.3 mol of the enamine of the formula III are used per mole of the compound II.

- 7. (Previously presented) The process according to claim 1, wherein a 3-phenyl(thio)uracil or a 3-phenyldithiouracil, where R¹ is hydrogen, is prepared and this compound I is subsequently
 - (A) reacted with an aminating agent of the formula IV

where L¹ is a nucleophilically displaceable leaving group to obtain a compound of the formula I where

R1 is amino: and

the variables R2, R3, X1, X2, X3, Ar and A are each as defined above; or

(B) reacted with an alkylating agent of the formula V

$$R^{1b}$$
- L^2 V

where

$$\begin{split} R^{1b} &\quad \text{is } C_1-C_6\text{-alkyl, } C_1-C_8\text{-haloalkyl, } C_3-C_7\text{-cycloalkyl, } C_2-C_6\text{-alkenyl, } C_2-C_6\text{-haloalkenyl, } C_3-C_6\text{-haloalkenyl, } C_3-C_6\text{-haloalkynyl; and} \end{split}$$

L² is a nucleophilically displaceable leaving group;

to obtain a compound of the general formula I where

R1 is as defined for R1b; and

the variables R², R³, X¹, X², X³, Ar and A are each as defined above.

8. (Previously presented) The process according to claim 1, wherein the phenyl iso(thio)cyanate of the formula II is described by the formula IIA

$$X^1 = C = N$$
 R^0
 R^0

where

 X^1 , X^3 and A are each as defined above and R^a , R^b , R^c and R^d are each independently hydrogen, halogen, cyano, C_1 - C_4 -haloalkyl.

 (Original) The process according to claim 8, wherein, in formula IIA, R⁸ is halogen, cyano or trifluoromethyl; R^c is hydrogen or halogen; and

R^b and R^d are each hydrogen.

- 10. (Canceled)
- 11. (Currently amended) The process according to claim 1, wherein R⁵ and R⁶ are each defined as follows: R⁵-and-R⁶ are each independently

hydrogen, C₁-C₆-alkyl which may if apprepriate carry optionally carries a substituent selected from the group consisting of halogen, cyano, C₁-C₄-alkoxy, C₁-C₄-alkoxycarbonyl, C₁-C₄-alkylthio, C₃-C₆-cycloalkyl, furyl, thienyl[[,]] and 1,3-dioxolanyl and-phenyl which may itself optionally be substituted by carries a substituent selected from the group consisting of halogen [[ori]] and C₁-C₄-alkoxy;

or

C₂-C₆-alkenyl[[,]] or C₂-C₆-alkynyl, C₃-C₆-cycloalkyl or phenyl which may if appropriate carry optionally carries 1 or 2 substituents selected from the group consisting of halogen, C₁-C₄-alkyl, C₁-C₄-fluoroalkyl, C₁-C₄-alkoxy, C₁-C₄-alkoxycarbonyl[[,]] and nitro and C₄-C₃-dialkylamine; paphthyl or syridyl: or

R[§]-and R[§]-together form a five-, six-or-seven-membered saturated or unsaturated nitrogen heterocycle which may contain, as a ring member, one further heteroatem selected from N, O and an NR⁷-group where R⁷ is hydrogen, C₃-C₈-alkyl, C₃-C₈-alkenyl or C₃-C₈-alkynyl,

and/or may be substituted by one, two or three substituents selected from G₁-G₄-alkyl and G₂-G₄-haloalkyl.

- 12. (Previously presented) The process according to claim 1, wherein $X^1,\,X^2$ and X^3 are each oxygen.
- 13. (Previously presented) The process according to claim 1, wherein R^1 is hydrogen, amino or $C_1\text{-}C_4\text{-}alkyl$.
- 14. (Previously presented) The process according to claim 1, wherein R^2 is hydrogen, C_1 - C_4 -alkyl or C_1 - C_4 -haloalkyl.
- 15. (Previously presented) The process according to claim 1, wherein ${\sf R}^3$ is hydrogen.
- 16. (Canceled)
- 17. (Previously presented) A process of claim 1, wherein \mathbb{R}^1 is hydrogen, further comprising reacting said compound of Formula I wherein R1 is hydrogen with an alkylating agent of Formula V

$$R^{1b} - L^2$$
 V,

wherein L² is a nucleophilically displaceable leaving group and $\label{eq:condition} \text{wherein } R^{1b} \text{ is } C_{1^+}C_{\theta^-} \text{alkyl}, C_{1^+}C_{\theta^-} \text{haloalkyl}, C_{3^+}C_{7^-} \text{cycloalkyl}, C_{2^+}C_{\theta^-} \text{alkenyl}, \\ C_{2^+}C_{\theta^-} \text{haloalkenyl}, C_{3^-}C_{\theta^-} \text{alkynyl} \text{ or } C_{3^-}C_{\theta^-} \text{haloalkynyl}.$